Specification for the Removal of 4 Albany Street Building from Containment

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- A. The Site will be considered ready for the Demolition Phase of the Work, when the Building is visually clean of all dust, all interior surfaces have been encapsulated with a colored encapsulant and interior air clearance testing indicates that concentrations of the analytes listed below have been reduced to the levels specified below. All visual clearance and air testing will conducted by the Environmental Consultant. Where necessary a "White Glove Test" will be performed to determine visual clearance.
- B. In the event that release from containment criteria is not met, all costs associated with re-testing and re-cleaning shall be borne by Contractor.
- C. Clearance Sampling:

Acceptance Air Criteria: The Building can be removed from containment and the Abatement Phase will be completed when area air measurements, performed using aggressive air sampling procedures which re-suspend residual settled dusts, are at or below each of the following airborne concentrations in every sample, respectively, for the metals noted below and for asbestos. Air testing for asbestos shall be in accordance with applicable regulations and applicable permits and variances for this Project. If any sample is above any of these levels then the Abatement Phase will be considered incomplete and the effected areas shall be re-cleaned. Clearance levels were selected at 50% of the applicable American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV). Results of aggressive air testing below these clearance levels will provide adequate protection for workers without respiratory protection and should minimize any off-site emissions from interior dust-associated contaminants.

1. Metals – Air Samples

Sample collection will be performed in accordance with NIOSH 7300, "Elements by ICP".

Sampling Time - 2 hrs. minimum Sampling Flow Rate - 4 l/min. minimum Sampling Volume- 500 liters minimum

<u>Metal</u>	Clearance Level	<u>Basis</u>
Antimony	$250 \mu g/m^3$	Antimony & compounds TLV
Barium	$250 \mu g/m^3$	Barium & soluble compounds TLV
Beryllium	1.0 ug/m^3	Beryllium & compounds TLV
Cadmium	5 ug/m ³	Cadmium & compounds TLV. Inhalable
		fraction
Chromium (III)	250 ug/m ³	Chromium (III) inorganic compounds
		TLV
Copper	500 ug/m^3	Copper dusts and mist TLV
Lead	25 ug/m^3	Lead and inorganic compounds TLV
Manganese	100 ug/m^3	Manganese and inorganic compounds
		TLV
Mercury	12.5 ug/m^3	Mercury, elemental TLV
Nickel	50 ug/m^3	Nickel, soluble compounds TLV.
		Inhalable fraction
Zinc	$1,000 \text{ ug/m}^3$	Zinc oxide TLV. Respirable fraction.

Mercury monitoring utilizing a Lumex direct read machine along with a data logging laptop will be utilized along with ICP-MS to obtain mercury levels. The Lumex must be utilized to obtain sensitivity levels below the clearance criteria established.

The number of samples per containment area (as determined by the Environmental Consultant) will be five (5).

2. Asbestos-Air Samples:

Asbestos sample collection will be performed in accordance with AHERA 40 CFR Part 763, "Asbestos" and in accordance with applicable regulations and permits and variances for this Project. Acceptance Criteria: Every sample indicates an airborne concentration of asbestos fibers of 70 structures per mm² or less. If any sample is above this level, then the Abatement Phase will be considered incomplete and the effected areas shall be recleaned. The number of samples per containment area (as determined by the Environmental Consultant) will be five (5) and no less than five (5) samples per floor. The elevator shaft and stair wells will have to be cleared and sampled separately from floor clearance activities.

3. Wipe Samples

Wipe samples of the steel in the sidewalk vaults will be taken and analyzed for mercury to assure that the mechanical removal of the rust and scale has removed the mercury contamination. The clearance level for these wipes is 15 ug/sq. ft. This is the Health-Based Screening Level for surface dusts established by the COPC Committee. If any sample results in an exceedance, the steel will either be re-cleaned or removed as part of the Abatement Phase.

The number of samples will be three (3).